DOCUMENT RESUME

ED 361 927 EC 302 394

AUTHOR	Ysseldyke, James E.; And Others
TITLE	Educational Outcomes and Indicators for Early Childhood (Age 6).
INSTITUTION	National Association of State Directors of Special Education, Alexandria, VA.; National Center on Educational Outcomes, Minneapolis, MN.; Saint Cloud State Univ., MN.
SPONS AGENCY	Special Education Programs (ED/OSERS), Washington, DC.
PUB DATE	Aug 93
CONTRACT	H159C00004
NOTE	26p.; For related documents, see ED 354 661, ED 359 691, and EC 302 393.
AVAILABLE FROM	National Center on Educational Outcomes (NCEO), Publications Office, 350 Elliott Hall, 75 East River Rd., University of Minnesota, Minneapolis, MN 55455 ($8).
PUB TYPE	Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Child Development; *Developmental Stages; *Disabilities; Educational Experience; Evaluation Methods; *Models; *Outcomes of Education; Preschool Children; Preschool Education; *Student Educational Objectives; Student Evaluation
IDENTIFIERS	*Educational Indicators

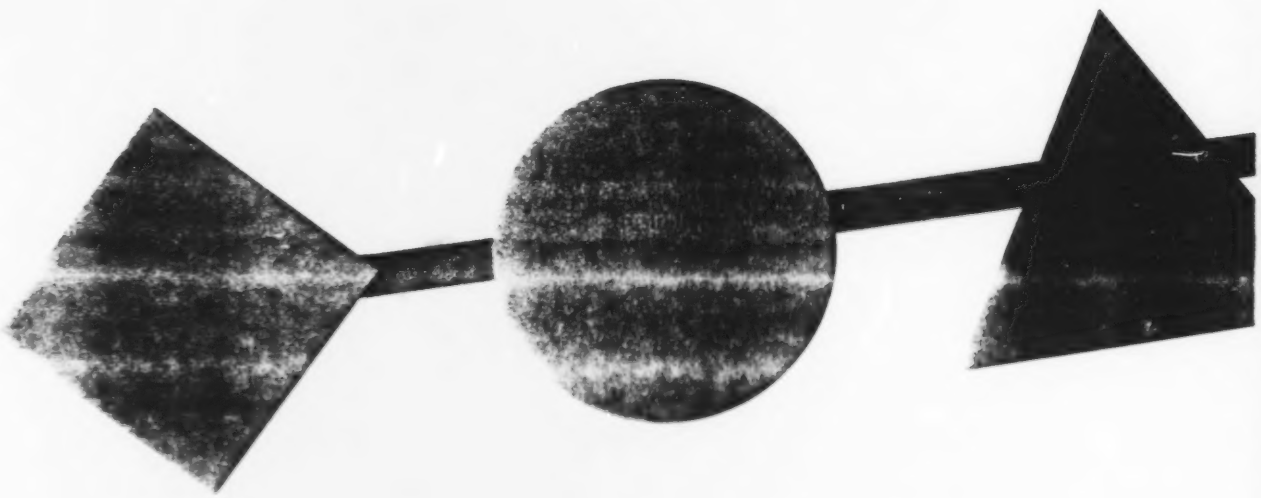
ABSTRACT

As part of its response to the current emphasis on educational reform and accountability, the National Center on Educational Outcomes (NCEO) has been working with federal and state agencies to facilitate and enhance the collection and use of data on educational outcomes for students with disabilities. In doing so, it has taken an inclusive approach, and this document presents a model of early childhood outcomes at age 6 and the indicators of these outcomes for all children, both those identified as having disabilities or developmental delays (or being at risk for developing them) and those without disabilities; that is, all 6-year-old children in educational and day care programs. This report describes: (1) a conceptual model of domains and outcomes; (2) possible indicators for each outcome; and (3) steps toward identifying sources of data for indicators. The conceptual model depicts educational resources (inputs and contexts) influencing learning opportunity and process, which in turn influence eight outcome domains that have a return influence on both the resources and opportunity/process. A breakdown of outcome domains are given in tabular form; they include physical health, responsibility and independence, contribution and citizenship, academic and functional literacy, personal and social adjustment, satisfaction, presence and participation, and family involvement/accommodation and adaptation. Indicators are numbers or other symbolic representations; they are usually presented as percentages or rates on the national and state levels. A tabulation of possible indicators for outcomes at age 6 are given in the next part of this document for each of the eight domains. This is followed by a sample of possible sources of data for 7 of the 10 indicators within the physical health domain. A list of contributors to the development of early childhood outcomes, including the members of the NCEO National Advisory Committee, and an annotated list of six supporting documents concludes the report. (JDD)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

ED 361 927

Educational Outcomes and Indicators for Early Childhood (Age 6)



EC 302394

NATIONAL CENTER ON EDUCATION OUTCOMES

The College of Education
UNIVERSITY OF MINNESOTA

August, 1993

Prepared by James E. Ysseldyke,
Martha L. Thurlow, and
Cheri J. Gilman

Additional copies may be ordered for $8.00.
Please write:

Publications Office
NCEO
350 Elliott Hall
75 East River Road
University of Minnesota
Minneapolis, MN 55455

The National Center on Educational Outcomes (NCEO) was established in October, 1990, to work with state departments of education, national policy-making groups, and others to facilitate and enrich the development and use of indicators of educational outcomes for students with disabilities. It is believed that responsible use of such indicators will enable students with disabilities to achieve better results from their educational experiences. The Center represents a collaborative effort of the University of Minnesota, the National Association of State Directors of Special Education, and St. Cloud State University.

The Center is supported through a Cooperative Agreement with the U.S. Department of Education, Office of Special Education Programs (H159C00004). Opinions or points of view do not necessarily represent those of the U.S. Department of Education or offices within it.

NCEO Core Staff:

Robert H. Bruininks
Cheri J. Gilman
Patricia J. Grafstrom
Kevin S. McGrew
Dorene L. Scott
James G. Shriner
Gail E. Spande
Martha L. Thurlow, assistant director
James E. Ysseldyke, director

Acknowledgments

In addition to numerous stakeholders and other contributors, many individuals helped to develop the concept of a model of outcomes and indicators of the outcomes. While all involved are too numerous to mention, the following individuals deserve special acknowledgement:

OSEP Project Officer
Lou Danielson

NASDSE Staff
Eileen Ahearn
Edward McCaul

All NCEO staff read, reviewed, and contributed to this document in various ways. Contributions beyond these were made by the following NCEO support staff:

Trish Grafstrom
Sheila Hoover
Michael Vanderwood

Graphic Design
University of Minnesota
Printing Services

BEST COPY AVAILABLE

Table of Contents

Educational Outcomes and Indicators for Early Childhood (Age 6) 1

Conceptual Model of Domains and Outcomes 2

Possible Indicators for Age 6 Outcomes 7

- Presence and Participation 8
- Family Involvement/Accommodation and Adaptation 9
- Physical Health 10
- Responsibility and Independence 11
- Contribution and Citizenship 12
- Academic and Functional Literacy 13
- Personal and Social Adjustment 14
- Satisfaction 15

Steps Toward Identifying Sources of Data for Indicators 17

Identifying and Defining the Important Outcomes of Education 19

Contributors to the Development of Age 6 Outcomes 21

Supporting Documents 25

Educational Outcomes and Indicators for Early Childhood (Age 6)

The current emphasis on educational reform and accountability reflects the public's desire to know the results of education for all of America's students. There is great interest in identifying the important outcomes of education and the best indicators of those outcomes.

The **National Center on Educational Outcomes** (NCEO) is working with federal and state agencies to facilitate and enhance the collection and use of data on educational outcomes for students with disabilities. In doing so, it has taken an inclusive approach, identifying a conceptual model of outcomes that applies to all students, not just to students with disabilities. Hundreds of educators, administrators, policymakers, and parents have participated in a consensus-building process using this model as a framework to identify key indicators of important educational outcomes for all students.

The purpose of this document is to present the model of early childhood outcomes at age 6 and the indicators of these outcomes for all children. This includes children identified as having disabilities or developmental delays (or being at risk for developing them) as well as all 6-year-old children in educational and day-care programs. In the pages that follow, you will find:

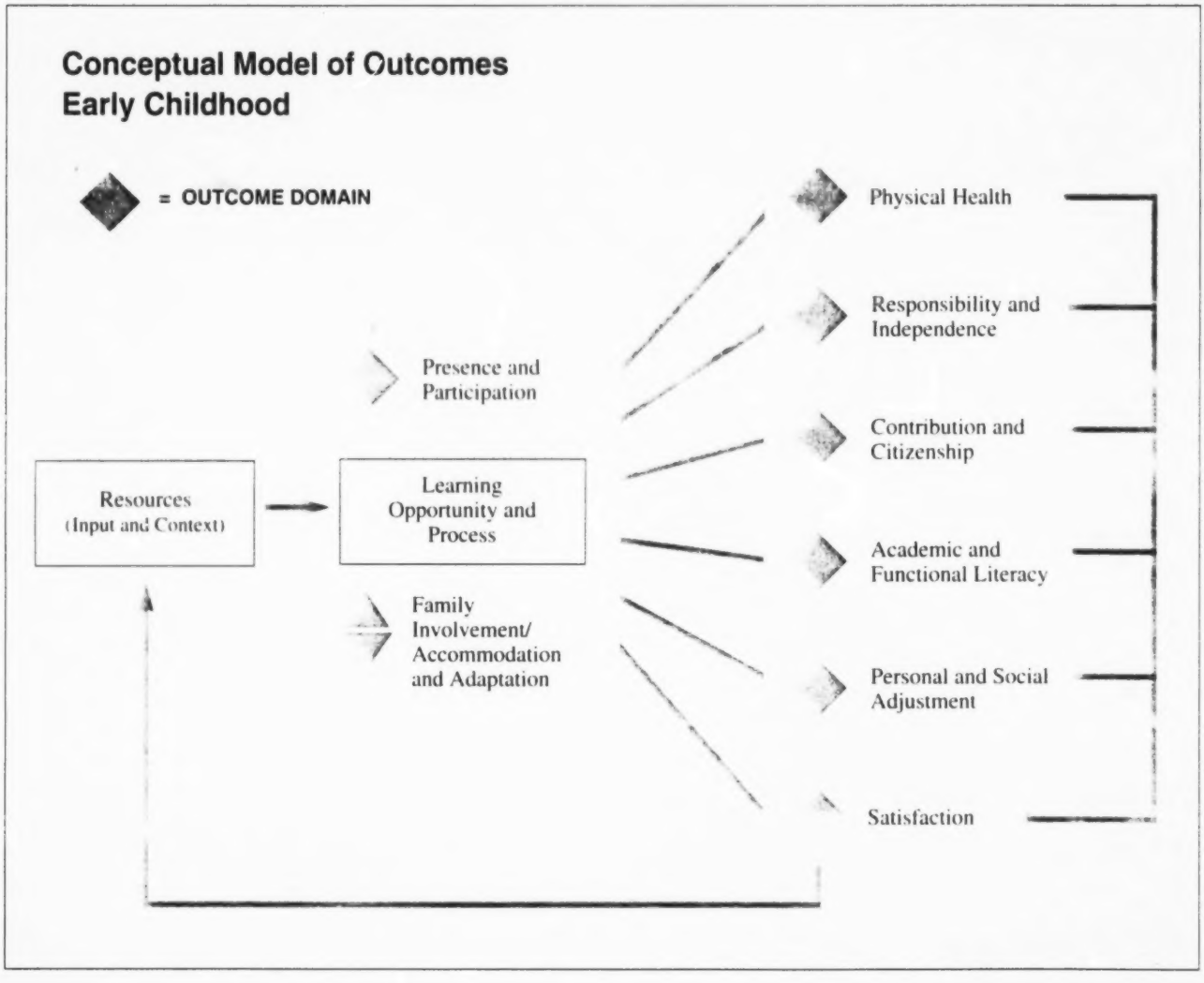
- A conceptual model of domains and outcomes
- Possible indicators for each outcome
- Steps toward identifying sources of data for indicators

We at the National Center on Educational Outcomes are indebted to many groups and individuals who provided feedback to us (see Contributors listed at the end of this document). We believe that the model and indicators for early childhood outcomes presented here will serve as a point from which to extend discussion as policymakers, states, and local school districts identify the important outcomes of education.

Conceptual Model of Domains and Outcomes

The conceptual model depicted below shows the complete educational model, with Educational Resources (Inputs and Contexts) influencing Learning Opportunity and Process. These in turn, influence the Outcome Domains (the shaded areas), which have a return influence on both the resources and opportunity/ process. Two of the shaded domains, Presence and Participation, and Family Involvement/Accommodation and Adaptation, are placed next to Learning Opportunity and Process. This placement results from the belief that these domains may be part of the process but still need to be measured. All domains (indicated by ◆) are treated equally as outcome domains.

Family Involvement is added to Accommodation and Adaptation in the conceptual model at the early childhood level. This reflects an increased need to focus on outcomes related to the involvement and support of the family and community.



The conceptual model is extended by identifying outcomes, indicators of the outcomes, and finally, sources of data for the indicators.

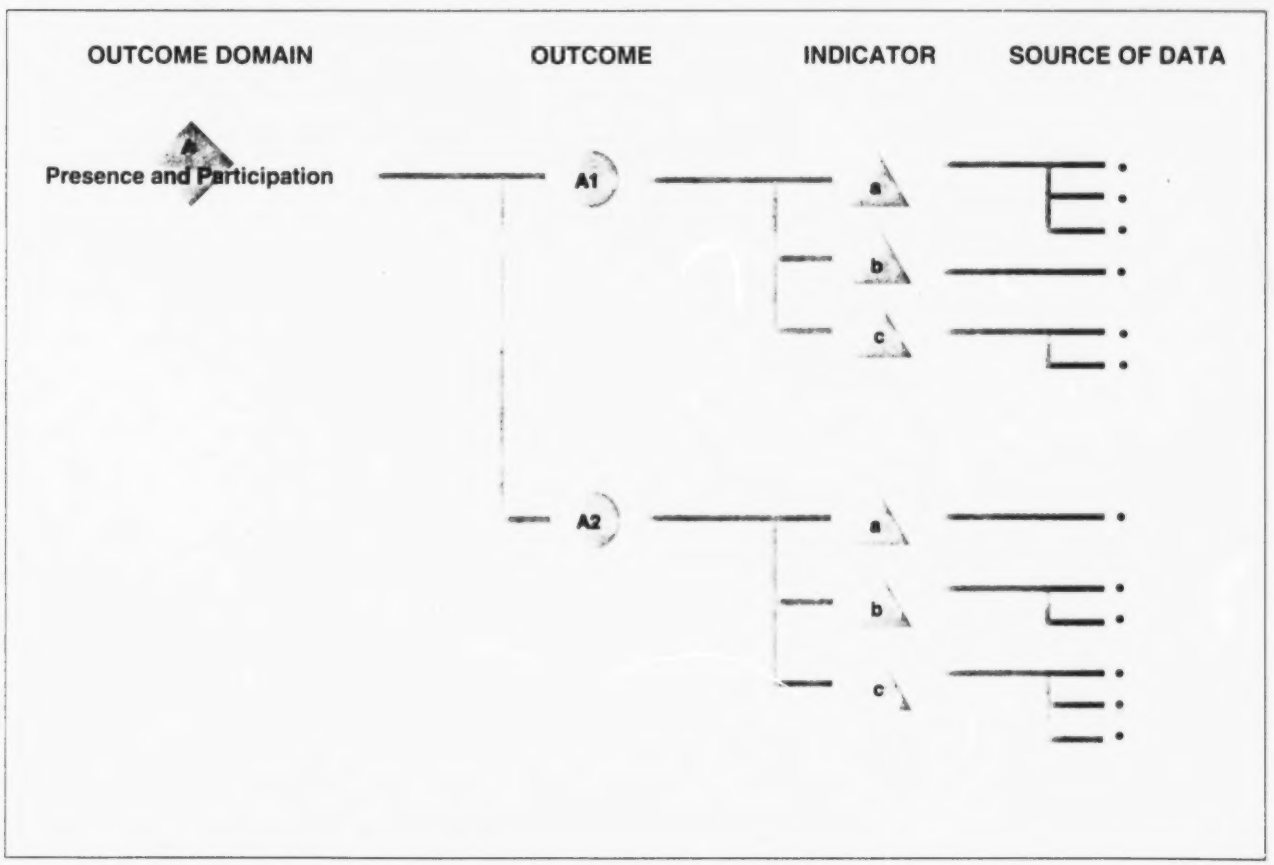
"Outcomes" are the results of learning experiences or interactions between children and the educational process.

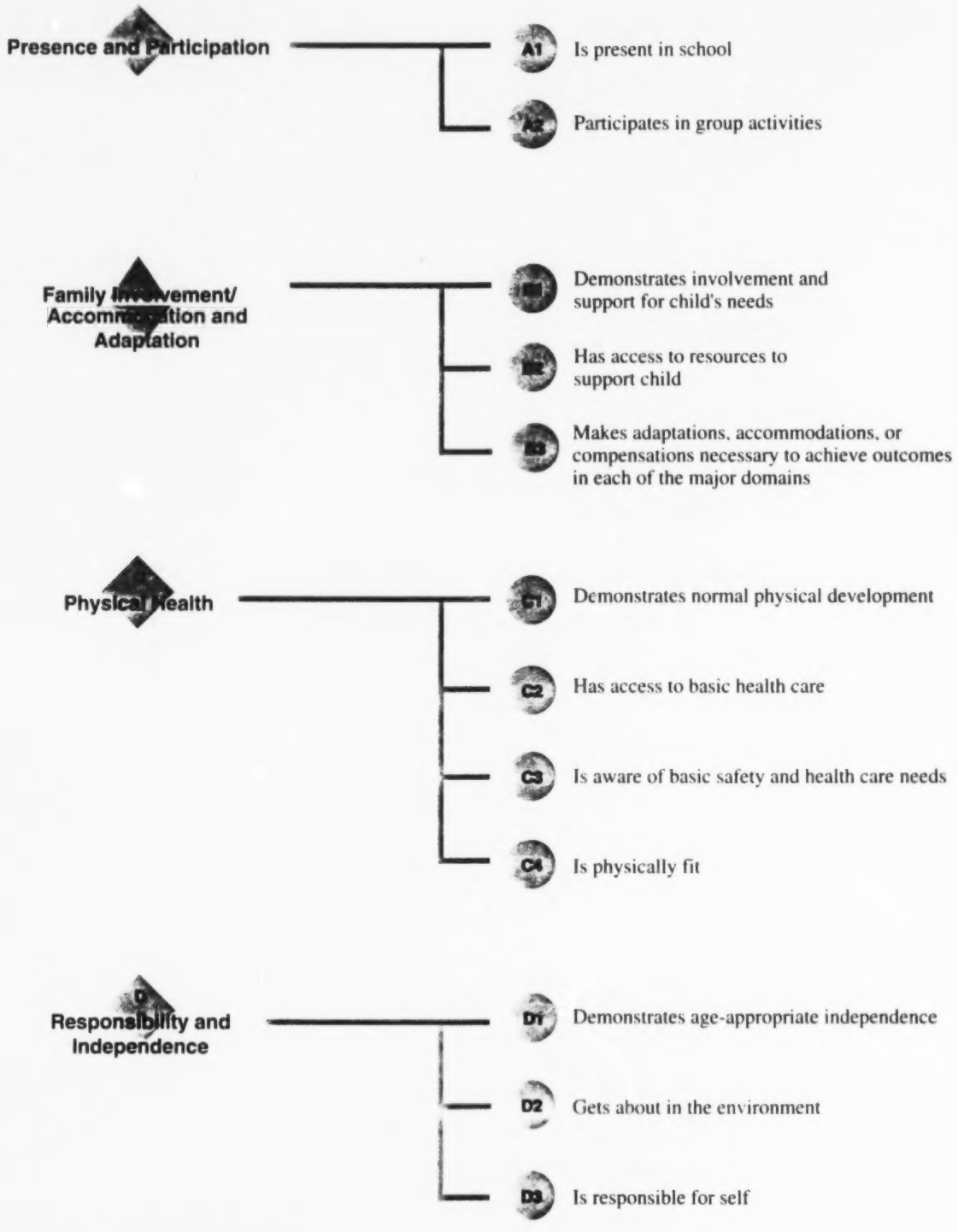
"Indicators" are numbers or other symbolic representations that can be used to determine whether desired outcomes are achieved.

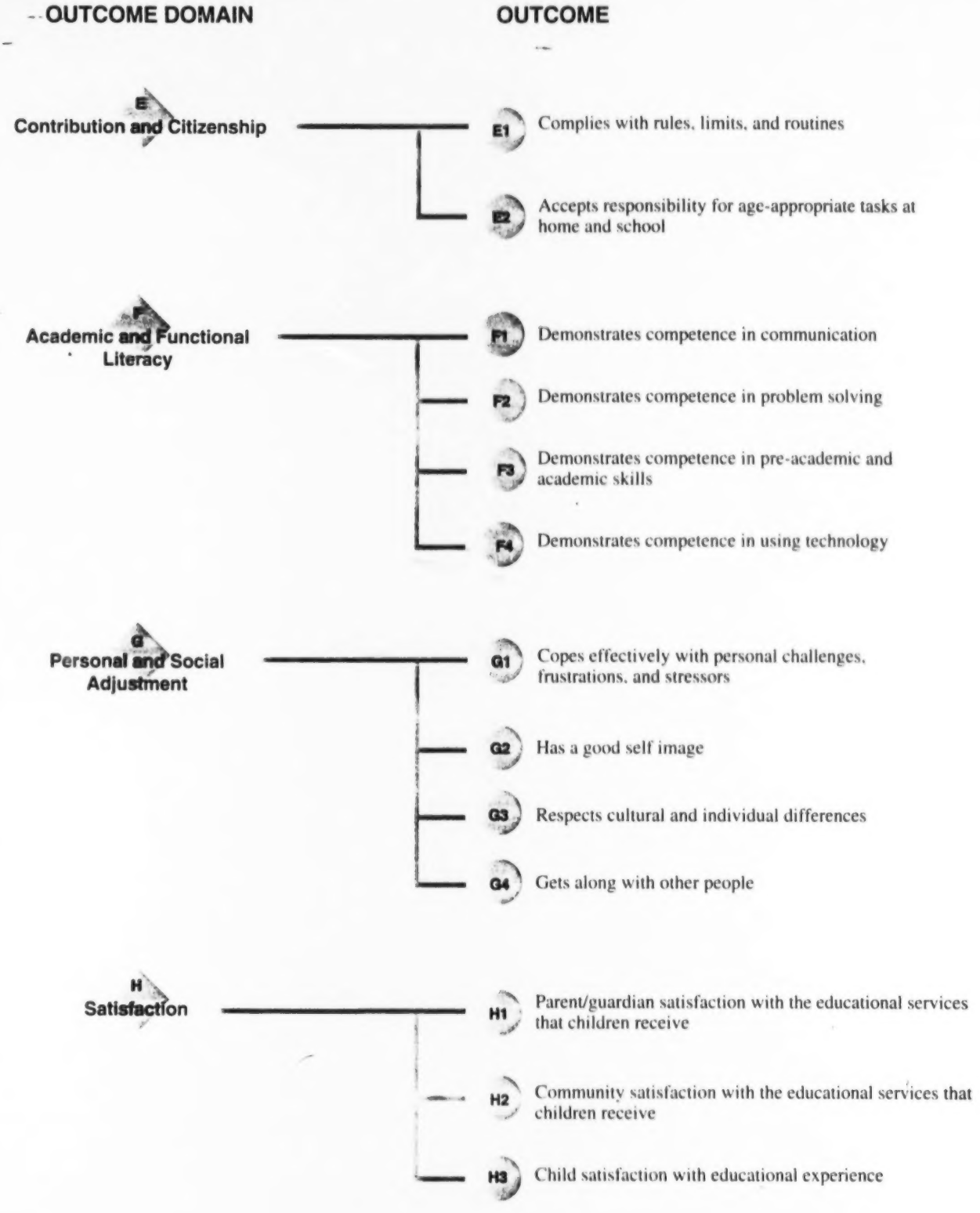
The relationships among these components are shown below for the Presence and Participation domain. Throughout this document outcome domains are represented by shaded diamonds, outcomes are represented by shaded circles, and indicators are represented by shaded triangles. Sources of data, represented below as small dots, are not fully developed for the eight domains in this document.

Outcomes for the eight domains are presented on pages 4 and 5. Indicators are listed for each outcome within outcome domains on pages 8-15. Sample sources of data for the Physical Health outcome domain are presented on page 17.

Within this document, outcome domains, outcomes, and indicators are assigned letters and numbers to help in referencing them. These letters and numbers do not imply a hierarchical order of any kind.




OUTCOME DOMAIN
OUTCOME
Presence and Participation
A1
Is present in school
A2
Participates in group activities
Family Involvement/ Accommodation and Adaptation
B1
Demonstrates involvement and support for child's needs
B2
Has access to resources to support child
B3
Makes adaptations, accommodations, or compensations necessary to achieve outcomes in each of the major domains
Physical Health
C1
Demonstrates normal physical development
C2
Has access to basic health care
C3
Is aware of basic safety and health care needs
C4
Is physically fit
Responsibility and Independence
D1
Demonstrates age-appropriate independence
D2
Gets about in the environment
D3
Is responsible for self


OUTCOME DOMAIN
OUTCOME
E
Contribution and Citizenship
E1
Complies with rules, limits, and routines
E2
Accepts responsibility for age-appropriate tasks at home and school
F
Academic and Functional Literacy
F1
Demonstrates competence in communication
F2
Demonstrates competence in problem solving
F3
Demonstrates competence in pre-academic and academic skills
F4
Demonstrates competence in using technology
G
Personal and Social Adjustment
G1
Copes effectively with personal challenges, frustrations, and stressors
G2
Has a good self image
G3
Respects cultural and individual differences
G4
Gets along with other people
H
Satisfaction
H1
Parent/guardian satisfaction with the educational services that children receive
H2
Community satisfaction with the educational services that children receive
H3
Child satisfaction with educational experience

Possible Indicators for Age 6 Outcomes

Indicators are numbers or other symbolic representations of outcomes. They can be viewed over time to gather information on trends. At the national and state levels, indicators usually are presented as percentages or rates.

State and local district personnel who are interested in specific students can easily translate the indicators presented here into individually-based indicators. A guide to these translations is included in the supporting document entitled *Self-Study Guide to the Development of Educational Outcomes and Indicators* (see p. 25).

Lists of possible indicators for early childhood outcomes at age 6, which were identified through the consensus-building process, are presented on the following pages. It is important to think of these as a framework within which outcomes, indicators, and sources of data can be generated.

= OUTCOME = INDICATOR

A DOMAIN

Presence and Participation

A1 Is present in school

- a. Percent of children enrolled in education programs (differentiated by type of program and enrollment of children with and without disabilities)
- b. Percent of children excluded or terminated from programs for typically developing children
- c. Absenteeism rate from educational programs (differentiated for reasons of medical/health, family-related moves, etc.)

A2 Participates in group activities

- a. Percent of children who participate in family activities
- b. Percent of children participating in community activities (differentiated by family activities and peer activities)
- c. Percent of children actively engaged in classroom activities

= OUTCOME = INDICATOR

B DOMAIN

Family Involvement/ Accommodation and Adaptation

B1 **Demonstrates involvement and support for child's needs**

- a. Percent of families with appropriate support to meet their child's needs
- b. Percent of families providing environments supportive of their child's education and learning
- c. Percent of family members who attend or participate in school/community-based programs in which their child is enrolled
- d. Percent of children whose family system positively supports their development

B2 **Has access to resources to support child**

- a. Percent of families knowledgeable about community resources and programs needed by their child
- b. Percent of families who are connected to appropriate service providers/agencies
- c. Percent of families with adequate social and economic resources to appropriately parent children
- d. Percent of families with appropriate parenting skills to anticipate and meet developmental needs of children
- e. Percent of families living in safe environments (free of community and family violence, and substance abuse)

B3 **Makes adaptations, accommodations, or compensations necessary to achieve outcomes in each of the major domains**

- a. Percent of children needing adaptive devices or skills who use them to participate in activities in home, school, and community environments

= OUTCOME = INDICATOR

Physical Health

C1 Demonstrates normal physical development

- a. Percent of children who are in expected range of growth and physical development
- b. Percent of children with appropriate nutrition (e.g., not obese or undernourished)
- c. Percent of children who have been abused or neglected
- d. Percent of children who have had serious injuries that require medical attention

C2 Has access to basic health care

- a. Percent of children who are fully immunized
- b. Percent of children who receive care supervision including education, diagnosis, and treatment services
- c. Percent of children who have had dental exams and appropriate treatment

C3 Is aware of basic safety and health care needs

- a. Percent of children who are aware of the dangers of abuse of drugs, alcohol, poisons, and medicine

C4 Is physically fit

- a. Percent of children who are in their expected range of physical fitness
- b. Percent of children who actively engage in developmentally appropriate large motor play activities

= OUTCOME = INDICATOR

DOMAIN

Responsibility and Independence

Demonstrates age-appropriate independence

- a. Percent of children who initiate and follow through on activities
- b. Percent of children who show concern for others, including family members
- c. Percent of children who can decide when help is needed and obtain it in an emergency
- d. Percent of children who act in ways that reflect an understanding of the responsibilities of being part of a family or group

Gets about in the environment

- a. Percent of children who get to and from destinations within school (e.g., familiar locations)

Is responsible for self

- a. Percent of children who can feed themselves and participate appropriately in mealtime routines
- b. Percent of children who can dress themselves
- c. Percent of children who can attend to their own hygiene needs
- d. Percent of children who follow basic safety rules
- e. Percent of children who take care of their own belongings

= OUTCOME = INDICATOR

DOMAIN

Contribution and Citizenship

E1 **Complies with rules, limits, and routines**

- a. Percent of children who participate in routines in familiar environments
- b. Percent of children who follow rules/limits

E2 **Accepts responsibility for age-appropriate tasks at home and school**

- a. Percent of children who perform their assigned classroom duties at school
- b. Percent of children who are considerate of others and engage in helping behaviors

= OUTCOME = INDICATOR

Academic and Functional Literacy

F1 Demonstrates competence in communication

- Percent of children who comprehend and effectively use language that accomplishes the purpose of the communication
- Percent of children who follow multi-step directions given to groups

F2 Demonstrates competence in problem solving

- Percent of children who generate, test, and evaluate solutions to concrete problems
- Percent of children who demonstrate an understanding of cause and effect

F3 Demonstrates competence in preacademic skills and academic skills

- Percent of children who demonstrate early literacy skills (e.g., sequencing events, recognizing and naming letters)
- Percent of children who demonstrate the ability to recognize that ideas and thoughts can be represented in oral and written language
- Percent of children who demonstrate basic mathematical concepts
- Percent of children who demonstrate skills in listening and attending
- Percent of children who are motivated and actively involved in learning tasks
- Percent of children who demonstrate knowledge of personal information (e.g., name, address, phone number)
- Percent of children who participate in and enjoy the arts

F4 Demonstrates competence in using technology

- Percent of children who are able to use technology (e.g., tape recorders, computers)

= OUTCOME = INDICATOR

Personal and Social Adjustment

G1 Copes effectively with personal challenges, frustrations, and stressors

- a. Percent of children who deal appropriately with frustration and unfavorable events
- b. Percent of children who express feelings and needs in socially acceptable ways
- c. Percent of children whose behavior reflects an appropriate degree of self-control and responsibility

G2 Has a good self image

- a. Percent of children who demonstrate or acknowledge their self-worth
- b. Percent of children who perceive themselves as capable of learning
- c. Percent of children who demonstrate an appropriate range of affect/emotions

G3 Respects cultural and individual differences

- a. Percent of children who recognize and respect similarities and differences in self and others
- b. Percent of children who recognize and respond appropriately to how others feel and think

G4 Gets along with other people

- a. Percent of children who have friends and are part of a positive social network
- b. Percent of children who interact appropriately with other children
- c. Percent of children who interact appropriately (e.g., cooperate) with adults

● = OUTCOME ▲ = INDICATOR

Satisfaction

Parent/guardian satisfaction with the educational services that children receive

- ▲ Percent of parents/guardians who understand educational services and rate them as effective, efficient, coordinated, and responsive in meeting *child* needs
- ▲ Percent of parents/guardians who understand educational services and rate them as effective, efficient, coordinated, and responsive in meeting *family* needs
- ▲ Percent of parents/guardians who are satisfied with their own level of involvement in educational decision making (differentiated by individual, local, and state)

Community satisfaction with the educational services that children receive

- ▲ Percent of education staff who are informed of and know how to use educational support services and rate them as effective, efficient, coordinated, and responsive in meeting *child* needs
- ▲ Percent of education staff who are informed of and know how to use educational support services and rate them as effective, efficient, coordinated, and responsive in meeting *family* needs
- ▲ Percent of providers who are satisfied with their own level of involvement with service-related decision making and delivery of services
- ▲ Percent of community (policy makers, members of the business community, general public) who understand educational services and rate them as effective, efficient, coordinated, and responsive in meeting *child* needs
- ▲ Percent of community (policy makers, members of the business community, general public) who understand educational services and rate them as effective, efficient, coordinated, and responsive in meeting *family* needs

Child satisfaction with educational experience

- ▲ Percent of children who enjoy their participation in educational settings

Steps Toward Identifying Sources of Data for Indicators

NCEO staff and advisors are currently in the process of identifying possible sources of data for each of the indicators that has been identified through the consensus-building process. Examples of possible sources of data for seven of the ten indicators within the Physical Health domain are provided on this page. These were generated by NCEO staff.

Before listing the possible sources of data for all outcome indicators in the NCEO model, experts will be asked to provide their ideas about the best data sources.

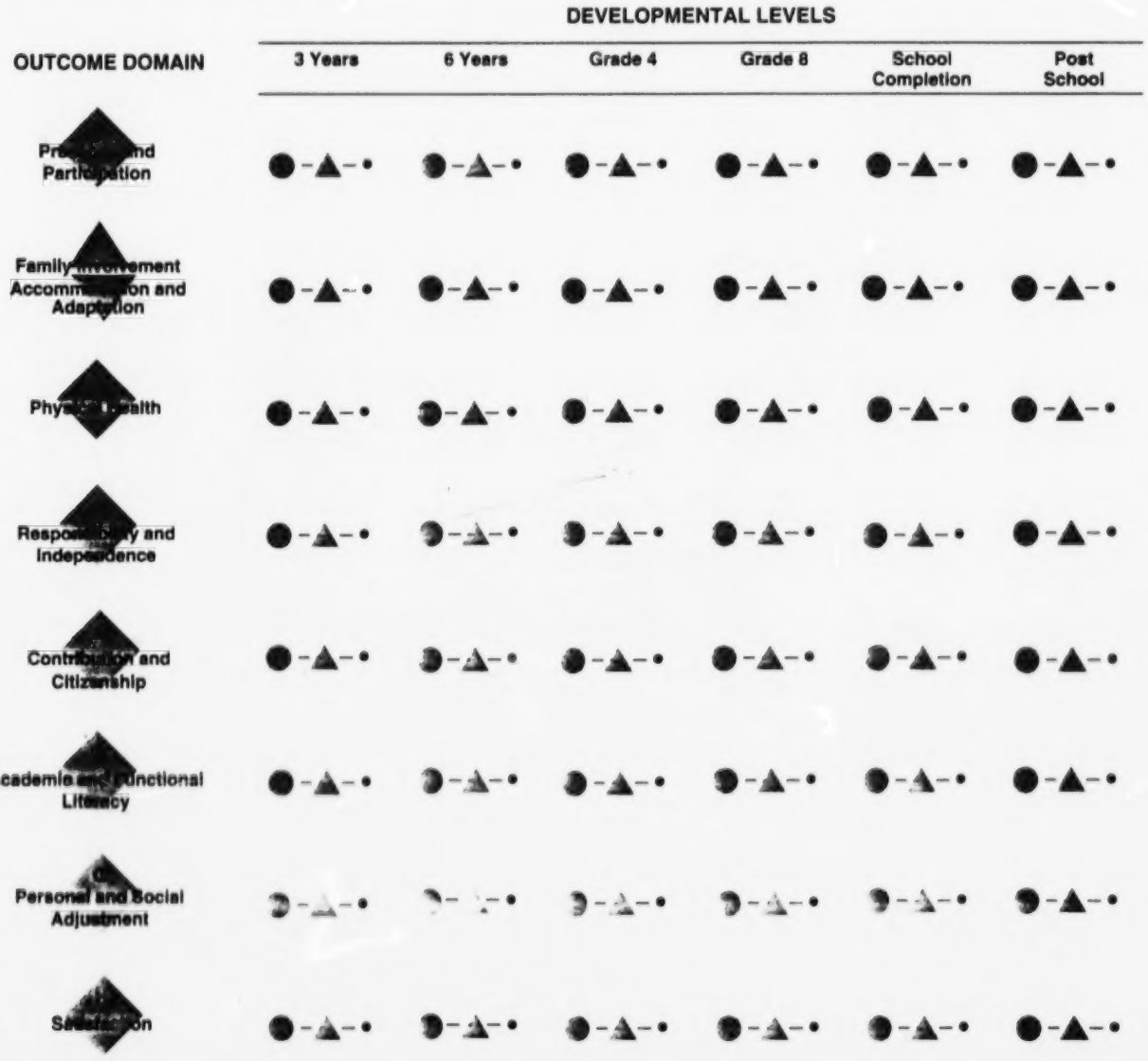
OUTCOME	INDICATOR	POSSIBLE SOURCE OF DATA
Demonstrates normal physical development	Percent of children who are in expected range of growth and physical development	• School records • Child health records
	Percent of children with appropriate nutrition (e.g., not obese or undernourished	• Health records
	Percent of children who have been abused or neglected	• Records of out-of-home placement
	Percent of children who have had serious injuries that require medical attention	• Hospital records • Parent surveys
Has access to basic health care	Percent of children who are fully immunized	• Public health records • Parent interviews • School entrance records
	Percent of children who receive health care supervision including education, diagnosis, and treatment services	• Parent interviews • Health insurance records
	Percent of children who have dental exams and appropriate treatment	• Dental records • Parent interviews

Identifying and Defining the Important Outcomes of Education

The model and lists of domains, outcomes, and indicators that have been presented in this document are viewed as providing a framework and examples. From these examples, states, districts, and schools can begin to identify and define the important outcomes of education for all of their students.

This document is a summary of the results of consensus-building exercises focused on age 6 only. NCEO is using the same consensus-building process to identify outcomes and indicators for the developmental levels indicated in the figure below.

These will be available in the same format as the early childhood (age 6) outcomes and indicators. At the time of this publication, reports are also available for age 3, school completion, and post school.



Contributors to the Development of Early Childhood Outcomes

Many individuals contributed to the development of the conceptual model, outcomes, and indicators presented here. Stakeholders participated in an intensive process of consensus building using a computerized multiattribute analysis procedure. Other contributors including NCEO's Advisory Committee members, read and reacted to various working papers, model prototypes, and questionnaires. With extreme gratitude we recognize and thank these contributors.

STAKEHOLDERS

Eileen Ahearn
NASDSE
Alexandria, VA

Sylvia Alatore Alva
Center for Collaboration for Children
California State University
Fullerton, CA

Maria Anderson
Parent/PACER
Minneapolis, MN

Donald Bailey
Early Childhood Research Institute
University of North Carolina
Chapel Hill, NC

Peter Behuniak
Bureau Chief
Connecticut Department of Education
Middletown, CT

Karen Brazeau
Associate Superintendent
Special Education & Student Services Division
Oregon Department of Education
Salem, OR

Lynn Busenbark
Preschool Coordinator
Early Childhood Section
Arizona Department of Education
Phoenix, AZ

Betty Cooke
Early Childhood Family Education
St. Paul, MN

Jane Cromie
Parent
Burnsville, MN

Wayne Erickson
State Director of Special Education
Minnesota Department of Education
St. Paul, MN

Mary Beth Fafard
Associate Commissioner
Massachusetts Department of Education
Quincy, MA

Ruth Flynn
Director, Early Childhood Education
Missouri Department of Education
Kansas City, MO

William Frey
Director
Disability Research Systems Inc.
Lansing, MI

Richard Green
Assistant Director of Special Education
Intermediate School District 917
Rosemount, MN

James Hamilton
Early Childhood Branch, OSEP
Washington, DC

Eileen Hammar
Statewide Parent Advocacy Network
Westfield, DE

Harvey Harkness
Curriculum Supervisor
New Hampshire Department of Education
Concord, NH

Jan Jernell
Part H Coordinator
Department of Health
Minneapolis, MN

Robert Kennedy
State Director of Special Education
New Hampshire Department of Education
Concord, NH

Robin Kimbrough
American Public Welfare Association
Washington, DC

Marie Knowlton
Associate Professor
Educational Psychology
University of Minnesota
Minneapolis, MN

Stevan Kukic
State Director of Special Education
Utah Department of Education
Salt Lake City, UT

Nancy Larson
Teacher, Mounds View Public Schools
Mounds View, MN

Kim Martinson
Coordinator, Special Education
Apple Valley Public Schools
Apple Valley, MN

Pamm Mattick
MNAEYC
St. Cloud State University
St. Cloud, MN

Carolyn McKay
Minneapolis Department of Health
Minneapolis, MN

STAKEHOLDERS (continued)

Patricia Nygaard
University of Minnesota
Minneapolis, MN

Ken Olsen
Mid-South Regional Resource Center
University of Kentucky
Lexington, KY

Martin Orland
National Education Goals Panel
Washington, DC

Cordelia Robinson
Director
JFK Center for Developmental Disabilities
Denver, CO

Sharon Shapiro
Head Start
St. Paul, MN

Pat Sitlington
University of Northern Iowa
Cedar Falls, IA

Barbara Smith
DEC, Allegheny Singer Research Institute
Pittsburgh, PA

Kathleen Steffens
Associate Professor
Bemidji State University
Bemidji, MN

Nancy Thabet
State Director of Special Education
West Virginia Department of Education
Charleston, WV

Kyla Wahlstrom
Associate Director
Center for Applied Research and Educational Improvement
University of Minnesota
Minneapolis, MN

Jill Weiss
Psychologist
Wilder-Rondo Early Childhood Project
St. Paul, MN

Mark Wolery
Child and Family Studies
Allegheny Singer Research Institute
Pittsburgh, PA

Janise Wyche
Head Start Teacher
Montgomery County
Takoma Park, MD

Jennifer York
Assistant Professor
Educational Psychology
University of Minnesota
Minneapolis, MN

CONTRIBUTORS

Joseph Ballard
Government Relations
Council for Exceptional Children
Reston, VA

Kenneth Bird
Superintendent
Westside Community Schools
Omaha, NE

Asbjorn Birkemo
Institute for Educational Research
University of Oslo
Oslo, Norway

Jim Boreing
Educational Program Consultant
Wyoming Department of Education
Cheyenne, WY

Martha Brooks
State Supervisor
Dover, DE

Pat Brown
Special Education
Washington Department of Education
Olympia, WA

Lyndall Bullock
University of North Texas
Denton, TX

Oona Cheung
Council of Chief State School Officers
Washington, DC

Sandra Christenson
Associate Professor
Educational Psychology
University of Minnesota
Minneapolis, MN

John Clark
Public Information & Publications
Nebraska Department of Education
Lincoln, NE

Mary Cohen
Government Relations
Council for Exceptional Children
Reston, VA

Shirley Curl
Gary County Unified School District
Junction City, KS

Mark Davison
Professor and Chair
Educational Psychology
University of Minnesota
Minneapolis, MN

Lawrence Dennis
Liaison Education Consultant
Ohio Department of Education
Columbus, OH

Lizanne DeStefano
Professor
University of Illinois
Champaign, IL

Eugene Edgar
Professor
Child Development and Mental Retardation Center
University of Washington
Seattle, WA

Christine Espin
Assistant Professor
Educational Psychology
University of Minnesota
Minneapolis, MN

CONTRIBUTORS (continued)

David Ford
Alberta Department of Education
Alberta, Canada

Marge Goldberg
Co-Director
PACER Center
Minneapolis, MN

JoAnn Gordini
Co-Chair, Best Practices
Oklahoma Department of Education
Oklahoma City, OK

Martin Gould
Towson State University
Towson, MD

Janet Graden
Professor of School Psychology
University of Cincinnati
Cincinnati, OH

John Haigh
Maryland Department of Education
Baltimore, MD

Susan Hasazi
Professor
University of Vermont
Burlington, VT

John Herner
Director of Special Education
Ohio Department of Education
Columbus, OH

Gene Hoffman
National Council of State Legislators
Oak Brook, IL

Lester Horvath
Associates in Professional Technologies
Hartford, CT

Barbara Huff
Federation of Families for Children's Mental Health
Alexandria, VA

David R. Johnson
Institute on Community Integration
University of Minnesota
Minneapolis, MN

James Kauffman
Professor
Department of Curriculum, Instruction and Special Education
University of Virginia
Charlottesville, VA

Marianne Kirner
Special Education Resource Center
Middletown, CT

Howard Knoff
Professor
School Psychology
University of South Florida
Tampa, FL

Sherry Kolbe
National Association of Private Schools for Exceptional Children
Washington, DC

Nancy LaCount
Kentucky Department of Education
Frankfort, KY

Sheryl Larson
Institute on Community Integration
University of Minnesota
Minneapolis, MN

Sue Lerner
South Central School District 406
Seattle, WA

Kay Lund
State Director of Special Education
Arizona Department of Education
Phoenix, AZ

Larry Magliocca
Great Lakes Area Regional Resource Center
The Ohio State University
Columbus, OH

Edwin Martin
President and Chief Executive Officer
National Center for Disability Services
Albertson, NY

Carol Massanari
Mid-South Regional Resource Center
Lexington, KY

Margaret Meany
North Carolina Department of Education
Raleigh, NC

Jean McDonald
National Governors' Association
Washington, DC

Mary Moore
Center for Policy Options in Special Education
Mathematica Policy Research
Washington, DC

Monty Neill
National Center for Fair & Open Testing
Cambridge, MA

Alba Ortiz
President
Council for Exceptional Children
Reston, VA

Jeffrey Osowski
State Director of Special Education
New Jersey Department of Education
Trenton, NJ

Susan Peters
Professor
Special Education
Michigan State University
East Lansing, MI

Lynda Price
Office for Students with Disabilities
University of Minnesota
Minneapolis, MN

Maynard Reynolds
Professor Emeritus
Department of Educational Psychology
University of Minnesota
Minneapolis, MN

Robert Robertson
State Director of Special Education
Indiana Department of Education
Indianapolis, IN

Edward Roeber
State Education Assessment Center
Council of Chief State School Officers
Washington, DC

Robert Rueda
Assistant Professor
Counseling and Educational Psychology
University of Southern California
Los Angeles, CA

Frank Rusch
Professor
Special Education
National Transition Institute
University of Illinois
Champaign, IL

CONTRIBUTORS (continued)

Virginia Roach
National Association of State Boards of Education
Alexandria, VA

Muriel Saunders
Bureau of Child Research
Kansas University
Lawrence, KS

Lorrie Shepard
Professor
School of Education
University of Colorado at Boulder
Boulder, CO

Robert Slavin
Professor
Center for Research on Effective Schooling
The Johns Hopkins University
Baltimore, MD

Fred Smokoski
State Director of Special Education
Colorado Department of Education
Denver, CO

Richard Steinke
State Director of Special Education
Maryland Department of Education
Baltimore, MD

David Stewart
Associate Professor
Counseling, Educational Psychology and Special Education
Michigan State University
East Lansing, MI

Jo Thomason
Council of Administrators of Special Education
Council for Exceptional Children
Albuquerque, NM

Walter Thompson
Nebraska Department of Education
Lincoln, NE

Gerald Tindal
Professor
Special Education
University of Oregon
Eugene, OR

James Tucker
State Director of Special Education
Pennsylvania Department of Education
Harrisburg, PA

Mary Wagner
Director
National Longitudinal Transition Study
SRI International
Menlo Park, CA

Hill Walker
Associate Dean
College of Education
University of Oregon
Eugene, OR

Colleen Wieck
Director
Governor's Planning Council on Developmental Disabilities
St. Paul, MN

Michael Winaker
Middletown High School
Middletown, MD

NCEO NATIONAL ADVISORY COMMITTEE

Lizanne DeStefano
University of Illinois
Champaign, IL

Ingrid Draper
Detroit Public Schools
Detroit, MI

Wayne Erickson
Minnesota Department of Education
St. Paul, MN

Mary Beth Fafard
Massachusetts Department of Education
Quincy, MA

Marge Goldberg
PACER Center
Minneapolis, MN

David Hornbeck
Co-Director
National Alliance for Restructuring Education
Senior Policy Advisor
Business Roundtable
Baltimore, MD

Susan Lehr
Schools Are For Everyone
Tully, NY

Martin Orland
National Education Goals Panel
Washington, DC

Alba Ortiz
Council for Exceptional Children
Reston, VA

Susan Peters
Michigan State University
East Lansing, MI

Ramsay Selden
Council of Chief State School Officers
Washington, DC

Robert Williams
United Cerebral Palsy
Washington, DC

Supporting Documents

The following documents are available for the reader who is interested in additional information on the model and its underlying assumptions, the process through which the current model and indicators were developed, or how states and school districts apply the model to meet their needs.

A Conceptual Model of Educational Outcomes for Children and Youth with Disabilities (Working Paper 1) July, 1991.

This paper discusses terminology and assumptions underlying the development of a model of outcomes for children and youth with disabilities. It presents alternative models, identifies unresolved issues, and represents a preliminary statement of models and issues.

Responses to Working Paper 1: Conceptual Model of Educational Outcomes for Children and Youth with Disabilities (Synthesis Report 3) June, 1992.

This paper is a synthesis of the responses from a large number of individuals who were invited to react to the educational outcomes model and the assumptions, definitions, and unresolved issues presented in Working Paper 1. Patterns in responses to specific issues including support, concerns, suggested refinements, and sample comments are included.

An Evolving Conceptual Model of Educational Outcomes for Children and Youth with Disabilities (Working Paper 2) August, 1992.

This paper is an extension of Working Paper 1, with revised definitions and assumptions, and an updated model of educational and enabling outcomes for students with disabilities. An initial list of indicators of each outcome domain is included.

Developing a Model of Educational Outcomes (September, 1993).

This paper summarizes the process and stages leading to the development of NCEO's conceptual model, indicators, and sources of data.

Consensus Building: A Process for Developing Educational Outcomes and Indicators (in preparation).

This paper details the consensus process used by NCEO to produce lists of outcomes and indicators.

Self-Study Guide to the Development of Educational Outcomes and Indicators (September 1993).

This guide provides state and district personnel with information on how to use NCEO's model in developing a set of outcomes and indicators.

Information on these materials can be obtained by calling NCEO Publications (612-626-1530) or by writing:

NCEO Publications
350 Elliott Hall
75 East River Road
Minneapolis, MN 55455

NCEO works in collaboration with
St. Cloud State University and
National Association of State Directors of Special Education

Printed on recycled paper with 10% post-consumer waste